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ABSTRACT

This study examined relations among parent-child interaction style and children's social behavior at school. A total of 158 children were observed for 4 hours in their homes the summer before their kindergarten year. Interactions with mothers and fathers were rated in terms of their engagement reciprocity and affective tone. Interactions were then classified as positively synchronous, negatively synchronous, or nonsynchronous. Children's peer group behavior (competence, aggression, and social withdrawal) was assessed via teacher reports. Multiple significant correlations were found between the occurrence of each type of parent-child interaction and the three behavioral measures, particularly for mothers. Next, concordance between mother-child and father-child style of interaction was assessed. Finally, a typological analysis revealed that it is not just the existence of one style of interaction that may facilitate or impede the child's social development. It was found, for example, that children who engaged in high rates of positive synchrony in conjunction with high rates of nonsynchrony were more aggressive than other children. Furthermore, there is evidence that optimal patterns of interaction for mothers and their children may differ from those of father-child dyads. Contains two tables and four figures. (Author)

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Family Interaction Styles as Predictors of Children's Competence: The Role of Synchrony and Nonsynchrony

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Abstract

This study examined relations among parent-child interaction style and children's social behavior at school. 158 children were observed for 4 hours in their homes the summer before their kindergarten year. Interactions with mothers and fathers were rated in terms of their engagement, reciprocity, and affective tone. Interactions were then classified as positively synchronous, negatively synchronous, or nonsynchronous. Children's peer group behavior (competence, aggression, and social withdrawal) was assessed via teacher report. Multiple significant correlations were found between the occurrence of each type of parent-child interaction and the three behavioral measures, particularly for mothers. Next, concordance between mother-child and father-child style of interaction was assessed. Finally, a typological analysis revealed that it is not just the existence of one style of interaction that may facilitate or impede the child's social development. It was found, for example, that children who engage in high rates of positive synchrony in conjunction with high rates of nonsynchrony are more aggressive than other children. Furthermore, there is evidence that optimal patterns of interaction for mothers and their children may differ from those of father-child dyads.

Family Interaction Styles as Predictors of Children's Competence: The Role of Synchrony and Nonsynchrony

While parent-child interaction is recognized as a central context for the development of young children's social competence, most research to date has focused on parental behaviors rather than dyadic qualities of interaction among parents and their children. There is evidence, though, that the style of interaction the child typically engages in with parents (e.g., synchronous, coercive, noncontingent) may be an important component of the socialization experience (see Crowell, Feldman, & Ginsberg, 1988; Harrist, 1991; Isabella & Belsky, 1991; Rocissano, Slade, & Lynch, 1987; Wahler, 1990). This study explores several aspects of parent-child dyadic interaction. First, associations between three types of parent-child interaction and three types of child behavior were examined. It was hypothesized that (1) children's social competence with peers would be related to high levels of positively synchronous parent-child interaction; and (2) children's aggression or social withdrawal among peers would be associated with high levels of negative synchrony or nonsynchrony among parent-child dyads.

It was also of interest (a) to ascertain how similar or dissimilar wives and husbands were in interactional style; and (b) to examine how the three types of interaction co-occur within parent-child dyads and among families, and how their co-occurrence relates to subsequent child behavior. These kinds of questions were therefore addressed:

* Are high levels of positive synchrony beneficial, irrespective of the others types of interaction experienced with that parent? Are the effects of negative synchrony and nonsynchrony moderated by experiences of positive synchrony?

* Is the relation between child behavior and interaction style more "potent" for the mother-child than the father-child dyad?

* What are the effects (for the child) of experiencing dissimilar styles of interaction with parents?

Method

Sample

Subjects were 158 kindergarten children (77 girls, 81 boys) drawn from two cohorts of a larger multi-site longitudinal study (Dodge, Bates, & Pettit, 1990). Children attended schools chosen to represent a range of ethnicity and socioeconomic status. A third of the children were classified as highly aggressive, a third average aggressive, and a third low aggressive according to mothers' ratings on the Achenbach Child Behavior Checklist. Home observational data were obtained for 102 father-child pairs and 157 of the mother-child pairs.

Parent-Child Interaction

Two, 2-hour naturalistic home observations were conducted with each family the summer before or early fall of the kindergarten year. Observers wrote narrative transcripts of all social interactions involving the target child and subsequently "segmented" the narratives into interactional episodes termed social events.

Interaction Components

Each social event (over 14,000 total) was coded along three scales developed to represent three important dyadic interaction components:

* Engagement: The number of back-and-forth turns.
* Affective Tone: 1 = both partners negative, 2 = one partner only is negative, 3 = mutual non-negativity.
* Connectedness: a 1-to-5 rating; in a highly connected event (rated as 5), parent and child share a focus of attention; the action or affect of one partner follows from the other's; there is a sense of reciprocity, with no under- or over-involvement.

Interaction Types

Using these components, each parent-child social event was classified as one of three interaction types: positively synchronous, negatively synchronous, or nonsynchronous (or none of the 3).

* **Positively Synchronous** interactions were marked by high engagement (2 or > turns), mutually non-negative affect, and high connectedness (4 or 5).

* **Negatively Synchronous** events had mutually-negative affect, were rated as engaged (2 or > turns), and were highly connected.

* **Nonsynchronous** events were those with low-to-moderate connectedness (rating < 4) and affective tone that was not mutually negative.

Scores were calculated to reflect the proportion of social events/dyad that were positively synchronous, negatively synchronous, and nonsynchronous. Means (and standard deviations) for the proportion scores are:

Mother-Child Positive Synchrony:	M = 27.9 (13.2)
Father-Child Positive Synchrony:	M = 29.4 (16.0)
Mother-Child Negative Synchrony:	M = 0.58 (1.8))
Father-Child Negative Synchrony:	M = 0.19 (.67)
Mother-Child Nonsynchrony:	M = 45.4 (15.4)
Father-Child Nonsynchrony:	M = 42.5 (17.2)

Interaction Style Typologies

In order to examine the co-occurrence of positive, negative, and nonsynchrony within individual parent-child dyads, two sets of typological variables were created. Median splits were performed to classify dyads that were high (at or above the median) or low (below the median) in proportion scores for positive synchrony and nonsynchrony. Separate median splits were conducted for mother-child (M-C) and father-child (F-C) dyads. (Negative synchrony was so rarely occurring that a median split was unfeasible and was excluded from further analysis.) The first set of interaction style variables created were:

M-C High Positive Synchrony/Low Nonsynchrony:

Group 1 (hi pos sync/lo nonsync), n=59
Group 2 (hi pos sync/hi nonsync), n=19
Group 3 (lo pos sync/hi nonsync), n=60
Group 4 (lo pos sync/lo nonsync), n=19

F-C High Positive Synchrony/Low Nonsynchrony:

Group 1 (hi pos sync/lo nonsync), n=39
Group 2 (hi pos sync/hi nonsync), n=12
Group 3 (lo pos sync/hi nonsync), n=39
Group 4 (lo pos sync/lo nonsync), n=12

The second set of interaction style variables involved creating two cross-parent typologies:

Mother-Child/Father-Child Positive Synchrony:

Group 1 (M hi pos sync/F hi pos sync), n=33
Group 2 (M hi pos sync/F lo pos sync), n=17
Group 3 (M lo pos sync/F hi pos sync), n=18
Group 4 (M lo pos sync/F lo pos sync), n=33

Mother-Child/Father-Child Nonsynchrony:

Group 1 (M hi non sync/F hi non sync), n=40
Group 2 (M hi non sync/F lo non sync), n=10
Group 3 (M lo non sync/F hi non sync), n=12
Group 4 (M lo non sync/F lo non sync), n=39

Social Behavior at School

In the winter or spring of the kindergarten year, teachers completed the Teacher's Report Form (TRF) of the Achenbach Child Behavior Checklist and Dodge's Teacher Checklist of Peer Relationships for each child. Raw scores on checklist items were summed to create measures of children's teacher-rated competence (six items from the Teacher's Checklist; alpha = .87), teacher-rated aggression (35 TRF items for girls, 38 TRF items for boys; alpha = .95 for each sex), and teacher-rated social withdrawal (10 TRF items for girls, 11 TRF items for boys; alpha = .77 for girls, .78 for boys).

Results

Parent-Child Interaction Type and School Behavior

Correlations between the parent-child interaction types (i.e., proportion of positive, negative, and nonsynchrony) and children's school variables. Note that positive synchrony and nonsynchrony were highly related, $r = -.83$ for mother-child pairs, $r = -.79$ for father-child pairs. Significant between-domain correlations include:

* Mother-child pos sync <--> competence ($r = .23$, $p = .002$)
* Mother-child pos sync <--> aggression ($r = -.16$, $p = .03$)
* Mother-child pos sync <--> withdrawal ($r = -.16$, $p = .03$)

* Mother-child neg sync <--> competence ($r = -.17$, $p = .03$)
* Mother-child neg sync <--> aggression ($r = .19$, $p = .01$)

* Mother-child non sync <--> competence ($r = -.21$, $p = .004$)
* Mother-child non sync <--> aggression ($r = .14$, $p = .04$)
* Mother-child non sync <--> withdrawal ($r = .25$, $p = .001$)

* Father-child pos sync <--> aggression ($r = -.22$, $p = .01$)

* Father-child non sync <--> aggression ($r = .18$, $p = .03$)
* Father-child non sync <--> withdrawal ($r = .18$, $p = .03$)

Within-Parent Variation in Interaction Type

Next, the co-existence of positive synchrony and nonsynchrony within individual parent-child dyads was examined. Two sets of ANOVAs were performed, one for the mother-child positive synchrony/low nonsynchrony typology, and one for the same father-child typology. Two of the mother-child analyses were significant, those predicting child competence (see Table 1) and child aggression (see Table 2). Only one of the three child variables--aggression--was differentially related to the father-child types (see Table 3).

Cross-Parent Variation in Interaction Style

Similarity of parent-child interaction style. Figure 1 and Figure 2 illustrate that a high degree of similarity was found between mother-child and father-child dyads in the same family when examining two styles of interaction, one that is highly synchronous and not often nonsynchronous, and one that is highly synchronous yet oftentimes nonsynchronous.

Family interaction style and child behavior. Finally, ANOVAs were conducted to assess the differential relations among the two mother-/father-child typologies. The typology representing variations in positive synchrony between mother-child and father-child dyads was not significantly associated with any of the three child variables. However, the nonsynchrony typology was significantly related to child aggression, as illustrated in Table 4.

Discussion

This study supports several notions that already exist in the literature. The pattern of bivariate correlations between parent-child interaction type and children's peer group behavior is easily interpreted. The relation of positive synchrony to optimal child outcomes (high competence, low aggression, low social withdrawal) is similar to findings from studies of parent-child interaction among infants, toddlers, and preschoolers, namely that reciprocity and responsivity seem to set the stage for the early learning of social rules (see Pederson et al., 1990; Rocissano, Slade, & Lynch, 1987; Schaffer & Crook, 1980). The association of nonsynchrony and negative synchrony with less socially desirable child behavior is also indicated in the extant literature, particularly among studies of aggressive children, whose families have been found engage in unusually high levels of both coercion and noncontingency (e.g., Patterson & Dishion, 1988; Wahler, Williams, & Cerezo, 1991). The rare occurrence of negative synchrony among this sample was surprising, but may have been due to the presence of the observer.

The typological analyses illustrate that, although positive synchrony is strongly associated with child competence, if high rates of nonsynchrony also are present, the child is not found to be as competent. Why might this be? If positive synchrony is present without nonsynchrony, is a more clear "message" about social relations delivered to the child? Or perhaps if the child is particularly difficult, the parent is able to maintain synchrony some of the time, and then lapses into a nonsynchronous style. To further complicate matters, this is pattern is found <u>across</u> parent-child dyads, as well. These findings clearly illustrate the need for further examinations of the complex patterning of parent-child interaction as we try to understand the processes underlying the development of competence.

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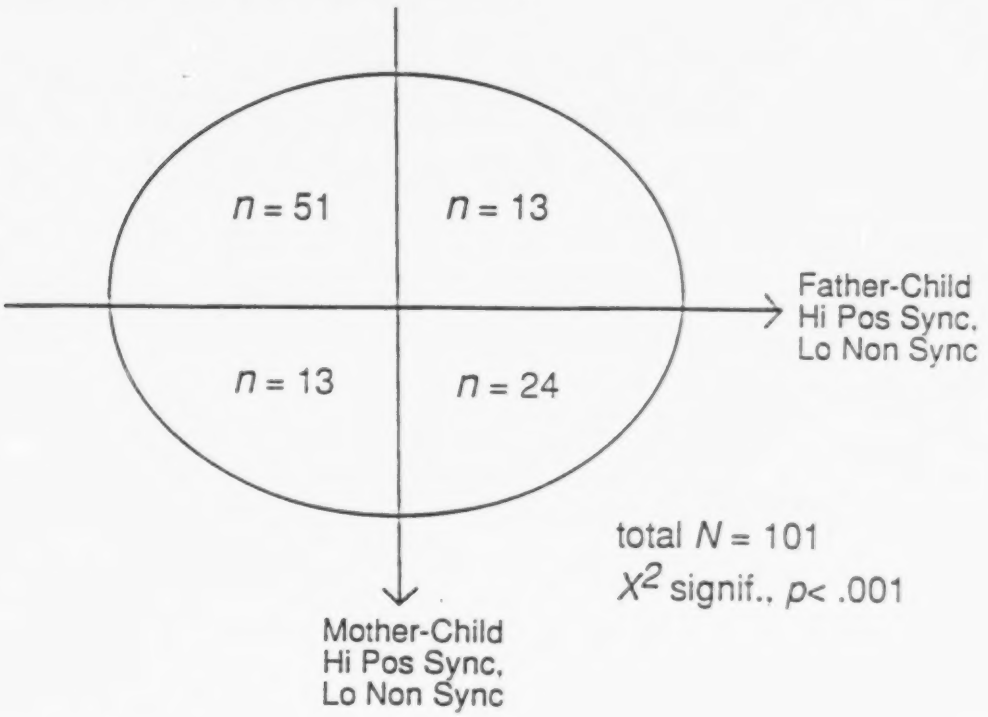
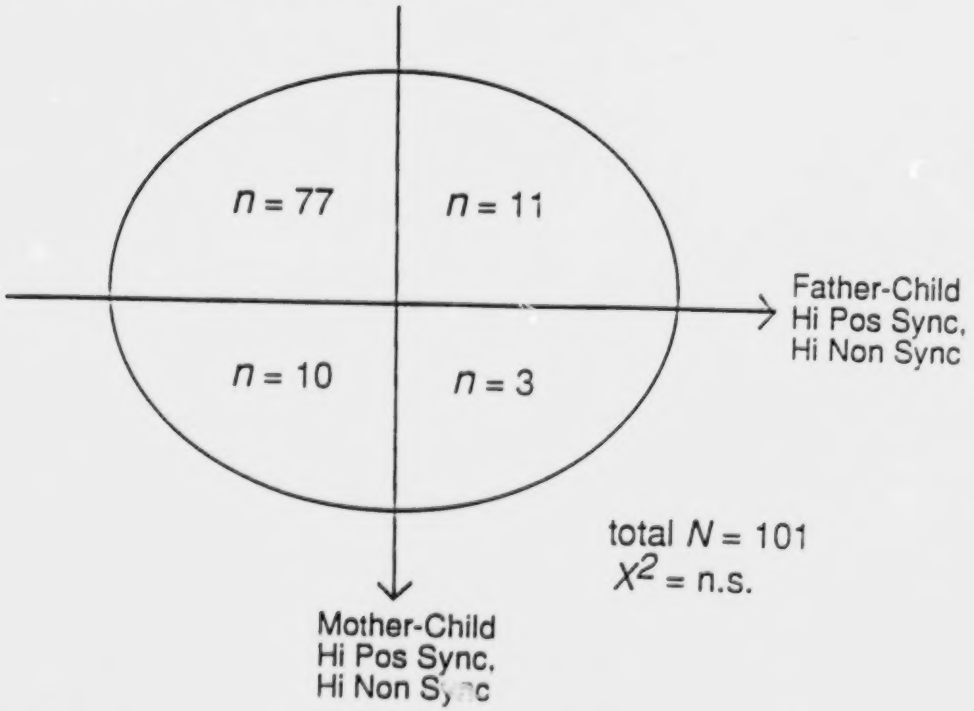
Figure 1.
Within-Family Similarity of Mother-Child/Father-Child Interaction Style I: High Levels of Positive Synchrony, Low Levels of Nonsynchrony

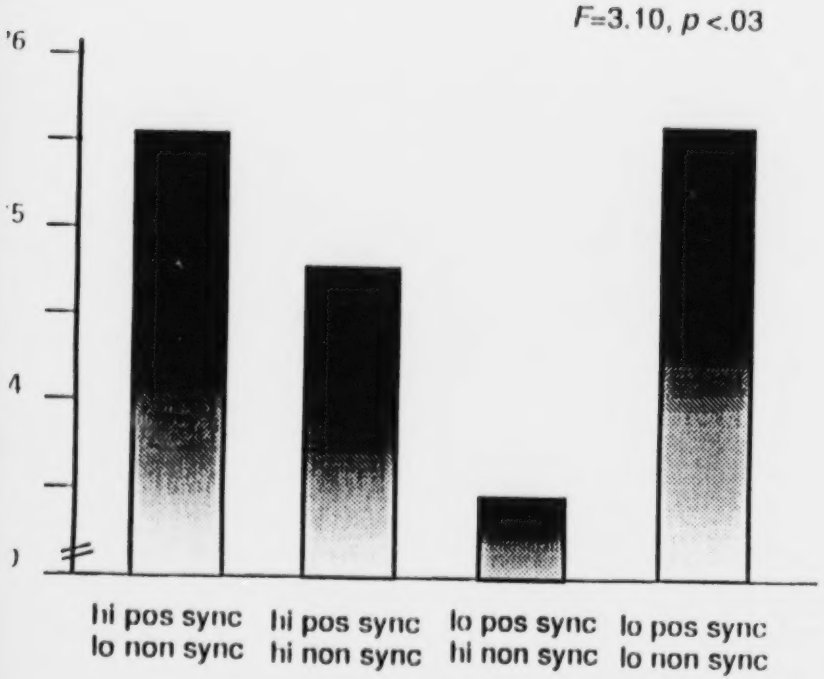


Mother-child and father-child dyads had similar interaction styles (i.e., were high-in-positive-synchrony-and-low-in-nonsynchrony or low-in-positive-synchrony-and-high-in-nonsynchrony) 74% of the time.

Figure 2.
Within-Family Similarity of Mother-Child/Father-Child Interaction Style II: High Levels of Positive Synchrony, High Levels of Nonsynchrony

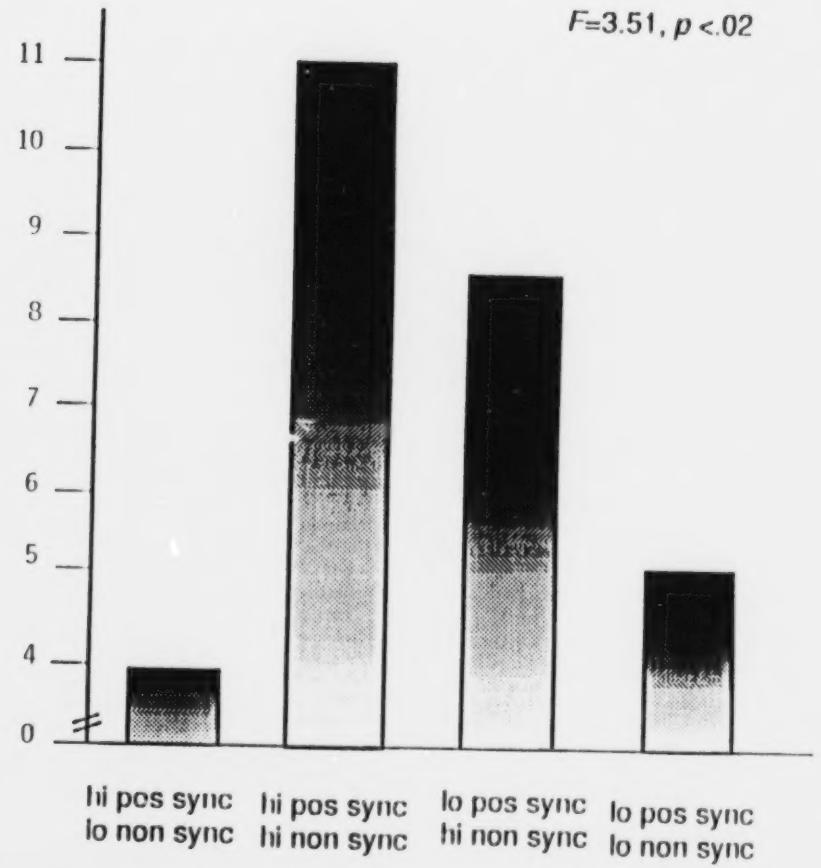


Mother-child and father-child dyads had similar interaction styles (i.e., were high-in-positive-synchrony-and-high-in-nonsynchrony or low-in-positive-synchrony-and-low-in-nonsynchrony) 79% of the time.



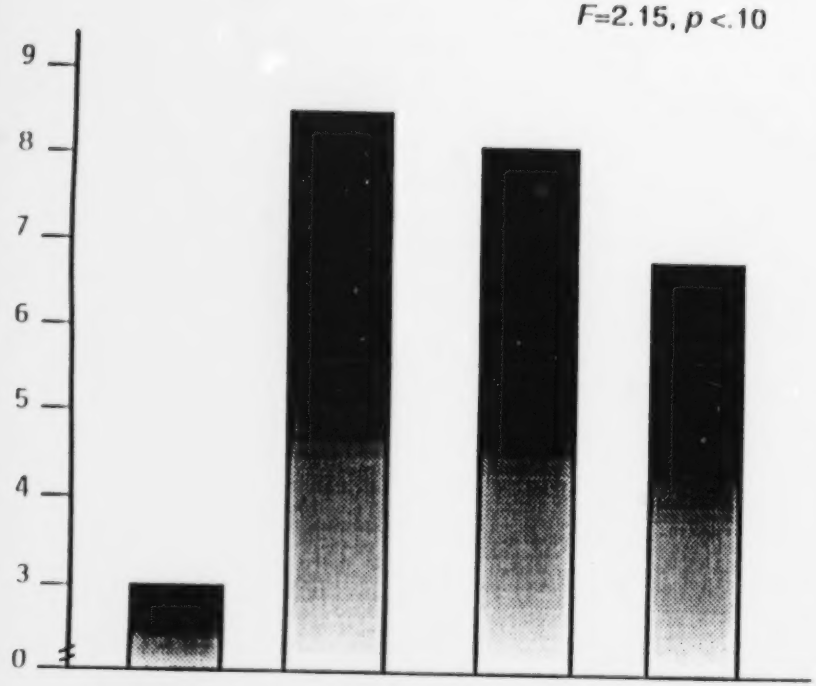
Post hoc (LSD) test shows signficant differences in group 3 versus groups 1 and 4

able 1.
redictions of Teacher-Rated Competence om Mother-Child Interaction Styles



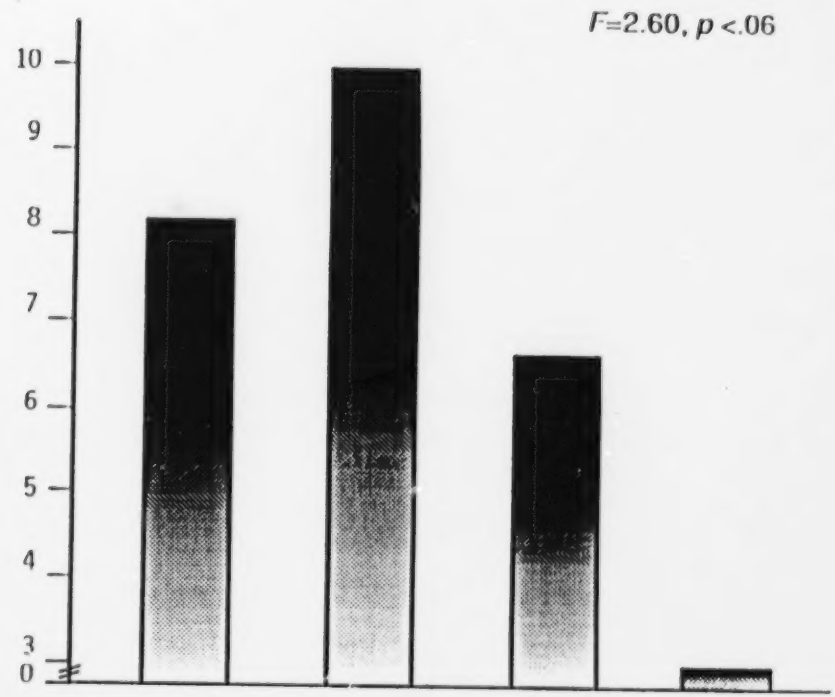
Post hoc (LSD) test shows signficant differences in group 1 versus groups 2 and 3; group 2 versus 4

Table 2.
Predictions of Teacher-Rated Aggression from Mother-Child Interaction Styles



Post hoc (LSD) test shows signficant differences in group 1 versus groups 2 and 3

able 3.
redictions of Teacher-Rated Aggression
om Father-Child Interaction Styles



Post hoc (LSD) test shows signficant difference in group 4 versus groups 1 and 2

Table 4.
Predictions of Teacher-Rated Aggression from Mother-Father-Child Interaction Styles